**Global to External Mapping**

Initially we will start with relational data store as our data source.

**About the data source:**

* The data mainly focuses on BMTC (Bangalore Metropolitan Transport Corporation) data.
* The snapshot shared with you has following details:
* Bus-stop information
* Route Information
* Ticket sales details
* Vehicle details

**What we have?**

* The snapshot of the data capturing above data.
* Structure of the data is as follows:

|  |  |  |
| --- | --- | --- |
| Number | Folder/Database | Files/Tables |
| 1 | Bus stop details | Lat-long information |
| 2 | Route Information | Route,route-stop,route-timings |
| 3 | Ticket Sales | Ticket\_sales |
| 4 | Other details | Vehicle,schedule,ticket,route-vehicle-details |

Note: Data will be shared with you.

**LOCAL SCHEMA :**

**-manifest**

**-**data source did

- data source name

-date

-author

-type

-description

-static

-organized

-source-api

-id

-password

-unorganized

-extension

-path

-size

-dynamic

-web-url

-id

-password

**-metadata**

- entity count

-entity

-eid

-data source

-description

-attribute

-name

-type

-relation

-ref-uid

-ref-data-source

- relationship count

-relationship

-name

-Entity 1

-attribute-entity1

-Entity 2

-attribute-entity2

**GLOBAL SCHEMA**

-global schema name

-global schema id

-entity

-eid

-ename

-**data source**

**-path to access local schema file**

-description

-attribute

-name

-type

-relation

-ref-uid

-ref-data-source

-relation count

-relation

-name

-Entity 1

-attribute-entity1

-data source 1

-Entity 2

-attribute-entity2

-data source 2

**What to do?**

1. Understand the data
2. Understand the given schema formats
3. Manually, curate the global schema document with few entities and few local and global relationships.
4. Access the global schema document.
5. Generate UI:

-select data source

-select data entities

-select attributes

-select predicates

1. You must access local schema file, via path accessed from global schema.
2. Convert input requests into locally executable query.
3. Run the query and generate the output on the UI.

***Key Challenge:***

***<Mapping input request into locally executable query>***